CLAIMS

What is claimed is:

1. An electrical connector, comprising:

at least one electrical conductor embedded within an electrical insulating material for forming a connector body, said conductor comprising a first plurality of ribs for defining a first torturous path for impeding passage of fluid between said conductor and said electrical insulating material, said connector body being formed to comprise a second plurality of ribs for impeding passage of the fluid between said connector body and a surrounding structure within which at least a portion of said connector body is disposed.

2. An electrical connector as in claim 1, where said second plurality of ribs comprise melt ribs.

3. An electrical connector as in claim 1, where said electrical insulating material comprises polyoxymethylene.

4. An electrical connector as in claim 1, further comprising a coating applied over said connector body, said coating having been applied by impregnation.

5. An electrical connector as in claim 4, wherein said coating comprises dimethylacrylate.

6. An electrical connector as in claim 1, wherein the fluid comprises a hydrocarbon based fuel.

7. A method for forming an electrical connector, the method comprising:

providing at least one electrical conductor comprising a first plurality of ribs, said first plurality of ribs for defining a first torturous path for impeding the passage of fluid;

jacketing said at least one electrical conductor with an electrical insulating material to form a connector body, said connector body comprising a second plurality of ribs, said second plurality of ribs for defining a second torturous path for impeding passage of fluid between said connector body and a surrounding structure within which at least a portion of said connector body is disposed.

8. The method as in claim 7, where said second plurality of ribs comprise melt ribs.

9. The method as in claim 7, wherein said electrical insulating material comprises polyoxymethylene.

10. The method as in claim 7, wherein the fluid comprises a hydrocarbon based fuel.

11. The method as in claim 7, further comprising:

impregnating a coating onto the connector body.

12. The method as in claim 11, wherein said coating comprises dimethylacrylate.

13. A fuel flange electrical connector, comprising:

at least one electrical conductor embedded within an electrical insulating material for forming a connector body, said conductor comprising a first plurality of ribs for defining a first torturous path for impeding passage of hydrocarbon based fuel components between said conductor and said electrical insulating material, said connector body being formed to comprise a second plurality of ribs for impeding passage of said hydrocarbon based fuel components between said connector body and a surrounding fuel flange within which at least a portion of said connector body is disposed.

14. A fuel flange electrical connector as in claim 13, where said second plurality of ribs comprises melt ribs.

15. A fuel flange electrical connector as in claim 13, where said electrical insulating material comprises polyoxymethylene.

16. A fuel flange electrical connector as in claim 13, where said connector body further comprises a coating applied onto said connector body, said coating having been applied by impregnation.

17. A fuel flange electrical connector as in claim 16, where said coating comprises dimethylacrylate.

18. A method for forming a fuel flange, the method comprising:

providing at least one electrical conductor comprising a first plurality of ribs, said first plurality of ribs for defining a first torturous path for impeding the passage of hydrocarbon based fuel components;

jacketing said at least one electrical conductor with an electrical insulating material to form a connector body, said connector body comprising a second plurality of ribs, said second plurality of ribs for defining a second torturous path for impeding passage of hydrocarbon based fuel components between said connector body and a surrounding material; and,

molding said fuel flange around said connector body for forming said second torturous path.

19. The method as in claim 18, where said second plurality of ribs comprises melt ribs.

20. The method as in claim 18, where said electrical insulating material comprises polyoxymethylene.

21. The method as in claim 18, further comprising:

impregnating a coating onto said connector body.

22. The method as in claim 18, wherein said coating comprises dimethylacrylate.

23. An electrical connector, comprising:

at least one electrical conductor embedded within an electrical insulating material for forming a connector body, said conductor comprising a first plurality of ribs for defining a first torturous path for impeding passage of fluid between said conductor and said electrical insulating material, said connector body being formed to comprise a second plurality of ribs comprising melt ribs, said second plurality of ribs for impeding passage of the fluid between said connector body and a surrounding structure within which at least a portion of said connector body is disposed.

24. An electrical connector, comprising:

at least one electrical conductor embedded within an electrical insulating material for forming a connector body, said conductor comprising a first plurality of ribs for defining a first torturous path for impeding passage of fluid between said conductor and said electrical insulating material, said connector body being formed to comprise a second plurality of ribs for impeding passage of the fluid between said connector body and a surrounding structure within which at least a portion of said connector body is disposed, said connector body further comprising a polymeric coating applied onto said connector body.